

To: CN=Gayle Martin/OU=R10/O=USEPA/C=US@EPA[]
Cc: CN=Heather Dean/OU=R10/O=USEPA/C=US@EPA;CN=Tracy
DeGering/OU=R10/O=USEPA/C=US@EPA[]; N=Tracy DeGering/OU=R10/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Phil North/OU=R10/O=USEPA/C=US
Sent: Tue 10/26/2010 1:26:45 AM
Subject: Re: Fort Knox dam raise

Gayle,

Non-Responsive

This week is an intense Bristol Bay week so I doubt I will get a chance to look at anything. Sorry.

Phil

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"To protect your rivers, protect your mountains."

From: Gayle Martin/R10/USEPA/US
To: Heather Dean/R10/USEPA/US@EPA, Phil North/R10/USEPA/US@EPA
Cc: Tracy DeGering/R10/USEPA/US@EPA
Date: 10/25/2010 02:04 PM
Subject: Fort Knox dam raise

Heather and Phil,

Tracy and I appreciate the interest you've both shown in chiming in for comments on the proposal to raise the dam at the Fort Knox gold mine. Comments are due this coming Thursday, Oct 28. I think that Tracy and I can cover any concerns on impacts to wetlands (15.64 acres, mostly black spruce over permafrost

on hillsides). But, there is also the question of how to handle potential impacts should the dam fail.

There's a lot of information to digest, so maybe I can pinpoint the important parts for you, with respect to this issue. I've downloaded all pertinent documents onto the shared drive, at:
G:\ARU-Wetlands\Fort Knox Gold Mine POA-1992-574-M19

Phil, because you cannot access the G: drive, I'm attaching some of the various documents here.

Public Notice -- The public notice is file name POA-1992-574-M19.pdf.
[attachment "POA-1992-574-M19.pdf" deleted by Phil North/R10/USEPA/US]

Drawings -- There is a separate document, POA-1992-574-M19-Drawings.pdf, which I advise you to ignore, because the "drawings", (actually aerial photos), are in black and white and are not readable. The same aerial photos are available, in color, in the JD document on pages 21 through 36, on the same shared drive, file name 2010_FtKnox_PJD_Final_8-31-10.pdf.

Phil, the JD file is too big to email, but it can be downloaded from this website:

http://www.poa.usace.army.mil/reg/PN_Scanned/2010%20September/2010_FtKnox_PJD_Final_8-31-10.pdf

Dam Failure Analysis -- Tracy and I attended a presentation by Sean Neuffer of SRK Consulting about the potential for the dam to fail. In addition to the Power Point presentation that can be found in the shared drive folder, there is a lengthy Fort Knox Dam Failure Analysis Report. But, it has a 2-page Executive Summary that will give you the gist of what was presented, and may be enough information for you to look at in order to aid us on the dam failure question. (Available at the same shared drive address, as file name FortKnox_DamFailureAnalysis_Report.pdf).

[attachment "FortKnox_DamFailureAnalysis_Report.pdf" deleted by Phil North/R10/USEPA/US]

Engineering Risk Assessment -- A document I've only just begun to review, contains listing of everything that could go wrong, and risk rankings for how likely it is that they will go wrong. Phil, the failure of the upstream tailings-supported toe of the modified centerline dam raise is addressed here, but they find that no release will be made.

[attachment "FortKnox_Engineered_Risk_Assessment_Report_Rev0.pdf" deleted by Phil North/R10/USEPA/US]

Geological and Hydrological Evaluation report -- I haven't looked at this document at all yet, except to skim through the executive summary. It does explain the modified centerline method that will be used to raise the dam. Phil, this document is too big to email, it can be downloaded at:

http://www.poa.usace.army.mil/reg/PN_Scanned/2010%20September/Geotechnical_and_Hydrological_Evaluation_Report.pdf

Finally, photos -- Tracy and I toured the Fort Knox Gold Mine on September 22, 2010. Photos are available for viewing on the shared drive:

G:\ARU-Wetlands\Photos\Fort Knox Gold Mine tour Sept 22 2010

Our Questions --

1. Should we address the possibility of dam failure, and the resulting flooding and siltation of downstream wetlands and streams in the context of this 404 permit review? If so, what are your suggested comments?
2. Should we be concerned about the modified centerline design, and should we counter the applicant by saying that we think it's really an upstream raise design?

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